

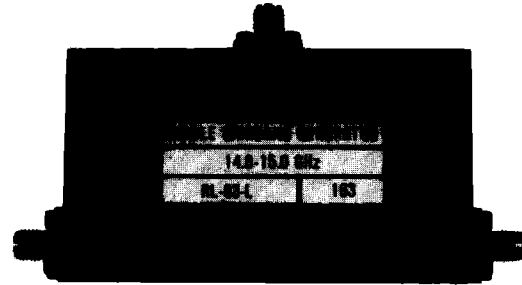
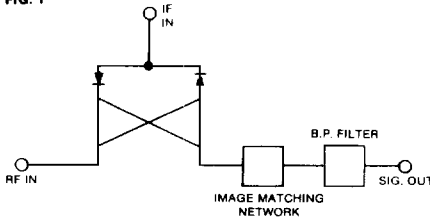
NARROW-BAND

GENERATORS, SINGLE SIDEBAND

SERIES RL

GENERAL INFORMATION: The Series RL Narrowband SSB Generators utilize a filter at the output of a mixer in order to suppress the carrier and unwanted sideband. Either the upper or lower sideband can be suppressed. Schematic of RL series is shown in figure 1.

FIG. 1



FREQUENCY RANGE: 0.5 to 15.0 GHz

RF IMPEDANCE: 50 OHMS.

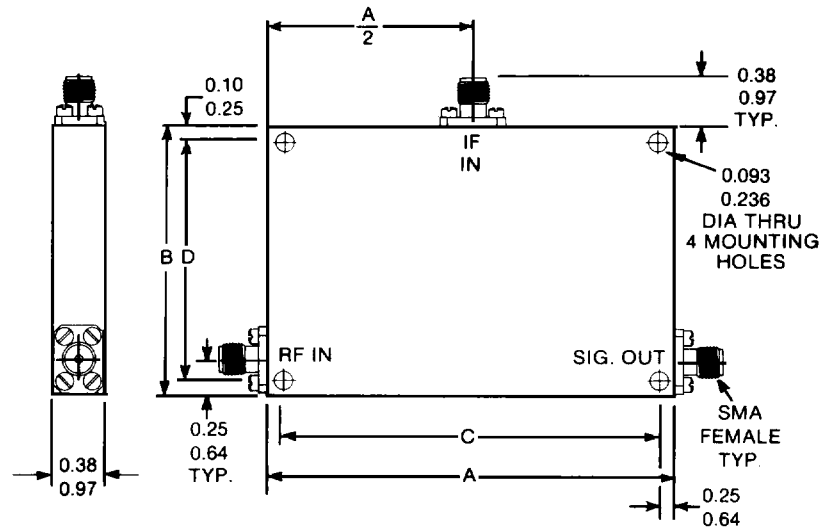
TEMPERATURE INFORMATION: Operating temperature from -55°C to +85°C

ENVIRONMENT: MIL-E-5400 or space

CONNECTORS: SMA standard, others on request.

NOTES:

1. Nominal RF input power levels are +13 dBm for the L.O. and +2 dBm for the I.F. signal.
2. VSWR's at the R.F. and sig. ports are less than 1.5 typical, 1.75 max.
3. The values for conversion efficiency are for a spacing between the RF IN frequency and the sig. out frequency in excess of 5%. If the sig. out frequency and RF IN frequency are closer than 5%, the conversion efficiency is degraded.
4. When ordering, specify whether the lower or upper sideband is to be suppressed, by adding suffix U or L to the model No., e.g., RL-56-U (upper sideband suppressed) or RL-56-L (lower sideband suppressed).
5. RL series are fixed tuned at the factory. Eg., the RL-22 filter is tuned at some customer specified frequency in the 0.5-0.6 GHz band. Therefore, when ordering, the I.F. frequency, RF IN frequency, and sig. out frequency must be specified.
6. Other models having different RF or I.F. frequencies can be designed to customer specifications.



ELECTRICAL PERFORMANCE

Model No.	RF (L.O.) Frequency GHz	Conversion Efficiency Note 3 dB	Unwanted Upper Sideband (Suffix U) or lower Sideband and Carrier Suppression dB	I.F. Frequency Note 5 GHz	Nominal Output Power dBm	Outline
RL-22	0.5 - 0.6	7	50	DC-0.1	-5	1
RL-26	1.0 - 1.1	8	50	DC-0.3	-5	2
RL-32	1.70 - 1.90	8	50	DC-0.5	-6	2
RL-36	2.0 - 2.3	9	50	DC-0.7	-6	2
RL-42	4.2 - 4.4	9	50	DC-1.0	-7	3
RL-47	5.4 - 6.5	10	50	DC-1.0	-8	3
RL-52	8.5 - 9.5	10	50	DC-1.0	-8	3
RL-56	11.0 - 12.0	11	50	DC-2.0	-9	3
RL-63	14.0 - 15.0	11	50	DC-2.0	-9	3

All specifications subject to change without notice.

MECHANICAL OUTLINES

OUTLINE	A Inches cm	B Inches cm	C Inches cm	D Inches cm
1	6.00	3.00	5.500	2.800
	15.24	7.62	13.970	7.112
2	5.00	2.50	4.500	2.300
	12.70	6.35	11.430	5.842
3	3.00	1.75	2.500	1.550
	7.62	4.94	6.350	3.937

INCHES/CENTIMETERS
XX ± .03 XXX ± .010 / XX ± .08 XXX ± .025